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being configured to control access to the given computer system; and

using the received power from the power integrated network to energize

the local firewall.

26. (original) The method as defined by claim 25 wherein the self-powering network includes a plurality of computer systems, at least one computer system in the network being coupled with the given computer system via a cable that transmits both data and power.

27. (original) The method as defined by claim 25 wherein the power integrated network includes an interface to a second network, the method further comprising:
coupling a network firewall to the interface to control access to the power integrated network.

28. (original) The method as defined by claim 25 wherein the power integrated network implements principles of Power Ethernet.

29. (original) The method as defined by claim 25 further comprising:
coupling the local firewall to a policy server to communicate policy data between the policy server and the local firewall.

REMARKS

Claims 1 – 29 are pending in this Application. Reconsideration and further examination is respectfully requested.

Drawings

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The drawings were objected to as failing to comply with 37 CFR 1.84(p)(5) because they

include a reference sign not mentioned in the description. The specification has been amended to

add the reference numeral 406 of Figure 4. A replacement sheet is attached to this Amendment.

Claim Objections

Claim 7 was objected to because the preamble was grammatically incorrect. Claim 7 has

been amended to correct the error.

Claim Rejections – 35 USC § 103

The Office Action Summary indicates that claims 21 – 29 are pending and rejected. The

Detailed Action, however, indicates that claims 1 – 29 have been examined and rejected, and

reasons for rejections of claims 1 – 29 are present in the Office Action. The Applicant therefore

assumes that claims 1 – 29 have been rejected.

Claims 1, 3 – 4, 6, 13 – 15 and 18 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Stallings (Cryptography And Network Security") in view of Lehr et al.

(6,643,566). This rejection is respectfully traversed.

The Applicant's exemplary claim 1 sets forth:

"A firewall for use in a power integrated network having a plurality of computer
systems, the firewall comprising:
    an input module that receives data addressed to a given computer system
in the power integrated network;
    a security module operatively coupled with the input module, the security
module analyzing the data received by the input module to determine if the data
can be forwarded to the given computer system; and

a power module operatively coupled with the security module and input module, the power module receiving power from the power integrated network to energize the security module and the input module."

The Applicant thus innovatively provides a firewall for protecting a given computer system in the network. The firewall includes its own power module for powering the firewall from the power integrated network.

To establish a prima facie case of obviousness, the combined references must teach or · suggest all the claimed limitations.

Stallings discloses known types of firewalls that are used to protect an internal network as a whole – not individual computers on the network. (Stallings p. 518 1st full paragraph: "The firewall is inserted between the premises network and the Internet to establish a controlled link and to erect an outer security wall or perimeter. The aim of this perimeter is to protect the premises network from Internet-based attacks...)

Lehr does not address firewalls at all.

Therefore, Stallings and Lehr, taken alone or in combination, fail to teach or suggest the Applicant's claimed firewall comprising an input module that receives data addressed to a given computer system, and a security module operatively coupled with the input module, the security module analyzing the data received by the input module to determine if the data can be forwarded to the given computer system. The Applicant therefore respectfully asserts that claim 1 and its dependent claims 3 – 4 and 6 are in condition for allowance.

Claim 13 sets forth a firewall including similar limitations to those set forth for claim 1. Therefore, claims 13 – 15 and 18 are believed allowable for the same reasons as set forth with regard to claim 1.

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Claims 2 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Stallings in view of Lehr and further in view of "Siemens and PowerDsine enter strategic collaboration to deliver benefits promised by powered-Ethernet telephony concept" ("Siemens"). This rejection is respectfully traversed. Claim 2 depends from claim 1 and claim 16 depends from claim 13. Siemens adds nothing further to Stallings and Lehr that would teach or suggest the Applicant's claimed firewall comprising an input module that receives data addressed to a given computer system, and a security module operatively coupled with the input module, the security module analyzing the data received by the input module to determine if the data can be forwarded to the given computer system. The Applicant therefore respectfully asserts that claims 1 and 16 are in condition for allowance.

Claims 5 and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Stallings in view of Lehr and further in view of Putzolu (6,578,076). Claim 5 depends from claim 1, and claim 17 depends from claim 13. Again, Putzolu adds nothing further to Stallings and Lehr that would teach or suggest the Applicant's claimed firewall comprising an input module that receives data addressed to a given computer system, and a security module operatively coupled with the input module, the security module analyzing the data received by the input module to determine if the data can be forwarded to the given computer system. The Applicant therefore respectfully asserts that claims 5 and 17 are in condition for allowance.

Claims 7 – 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lehr in view of Stallings as taught by Fackler et al. (5,729,204). This rejection is respectfully traversed.

Claim 7 sets forth:

"A computer cable for connecting a first computer system with a second computer system in a power integrated network, the cable comprising:

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> a data channel for transmitting data between the first computer system and
> the second computer system;
>   a power channel for transmitting power between the first computer system
> and the second computer system; and
>   a firewall coupled with the data channel and the power channel, the
> firewall being energized by power received from the power channel."

In order to establish a prima facie case of obviousness, the suggestion to make the claimed combination must be found in the prior art on not based on the Applicant's disclosure.

Lehr discloses a simple cable. Stallings discloses a firewall. Fackler discloses a cable including logic capable of selectively initiating data communications between a device and other devices. None of these references, taken alone or in combination, discloses a cable comprising a firewall.

The Office Action states that the motivation to combine these references "would have been to provide a cable that controls data flow between devices and is relatively compact and relatively low cost". However, it is noted that Fackler's control of data flow refers to turning on and off the physical connection between two devices. Fackler does not address firewalls or any functions thereof. Were one motivated by Fackler to turn on and off a connection between devices, one would not choose a firewall, as that is not what firewalls do. Thus, the motivation to combine these references can come only from the Applicant's disclosure. The rejection is thus improper. The Applicant therefore respectfully asserts that claim 7 and its dependent claims 8 – 12 are in condition for allowance.

Claims 19, 21 – 22, and 24 – 27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shimbo et al. (6,185,680) in view of Lehr. This rejection is respectfully traversed.

Exemplary claim 19 sets forth:

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"A power integrated network coupled with a specified network, the power integrated network comprising:

      a plurality of computer systems;

      a network firewall coupled between the power integrated network and the specified network;

      a local firewall coupled to one of the computer systems, the local firewall being powered by the power integrated network, the local firewall preventing unauthorized access to the one computer system via the specified network the local firewall preventing unauthorized access to the one computer system only."

Shimbo teaches hierarchical security gateways that provide boundaries between networks, similar to Stallings. (Col. 13 lines 53 – 55: "Each security gateway is provided at a boundary between the network to be protected and the networks outside of that network...") Stallings fails to teach or suggest a network including a firewall and a local firewall preventing unauthorized access to "the one computer system only". Lehr, again, does not address firewalls. Thus, Stallings and Lehr, taken alone or in combination, fail to teach or suggest a network including a firewall and a local firewall preventing unauthorized access to "the one computer system only". The Applicant therefore respectfully asserts that claim 19 and its dependent claims 21 – 22 and 24 are in condition for allowance.

Independent claim 25 includes limitations similar to those of claim 19. The Applicant therefore respectfully asserts that claim 25 and its dependent claims 26 – 27 are in condition for allowance.

Claims 20 and 29 were rejected under 35 U.S.C. 103(a) as being unpatentable over Shimbo in view of Lehr and further in view of Putzolo. Claims 20 and 29 are dependent upon claims 19 and 25 respectively. Putzolo adds nothing further to cure the deficiencies of Shimbo and Lehr. Claims 20 and 29 are therefore believed allowable for the same reasons as set forth for claims 19 and 25.

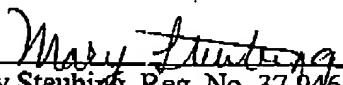Serial No. 09/691549   - 12 -   Art Unit: 2132

Claims 23 and 28 were rejected under 35 U.S.C. 103(a) as being unpatentable over

Shimbo in view of Lehr and further in view of Siemens. Claims 23 and 28 are dependent upon

claims 19 and 25 respectively. Again, Siemens adds nothing further to cure the deficiencies of

Shimbo and Lehr. Claims 23 and 28 are therefore believed allowable for the same reasons as set

forth for claims 19 and 25.

The Applicant has made a diligent effort to place the claims in condition for allowance.

However, should there remain unresolved issues that require adverse action, it is respectfully

requested that the Examiner telephone the undersigned, Applicants' Attorney at 978-264-6664 so

that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now

considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

_9/16/04_
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REPLACEMENT SHEET

configuration parameters. In addition, the network administrator, network firewall 14, or the computer system 18 being protected may include a configuration program that automatically or manually forwards configuration data to the local firewall 20.

Figure 4 shows an illustrative process of configuring a local firewall 20 after it is connected to a computer system 18. The process begins at step 400, in which power is received by the local firewall 20 from the network 10. This power may be received via the power channel in the computer cable 24. Once converted to an appropriate level, the power is distributed to the elements in the local firewall 20, thus permitting the local firewall 20 to operate.

Once energized, the configuration data is retrieved by the administration module 32 from both the configuration memory 40 (i.e., the default configuration data) and the policy server 22 (steps 402 and 404). The local firewall 20 then is configured in accordance with the retrieved configuration data (step 406). At some later time, it is determined if the configuration parameters are to be modified (step 408). This indication may originate from the prior noted configuration program(s) executing on either the network administrator's computer system or the local computer system 18 being protected. If modifications are required, then the local firewall 20 is reconfigured as specified by the reconfiguration data (step 410).

It should be noted that many other configuration processes can be used. Accordingly, the illustrative process of figure 4 is but one of many potential methods of configuring the local firewall 20. In fact, various steps in the noted process can be executed in an order that is different than that described.

In addition to configuring itself, the local firewall 20 may act as a proxy for its protected local computer system 18 when such computer system 18 initially joins the network 10. To that end, the computer system 18 registers with the router 16 or other relevant network device in a conventional manner using